

# ABSTRACT OF THE DISCLOSURE

A filter circuit includes two first differential circuits disposed on A and B sides, in each of which a ratio of the number of transistors to that of diodes is 1:4, and two second differential circuits disposed on the A and B sides, in each of which the ratio of the number of transistors to that of diodes is 4:1. Base electrodes of the transistors of the A-side first differential circuit and the A-side second differential circuit are connected to a circuit input terminal, while base electrodes of the transistors of the B-side first differential circuit and the B-side second differential circuit are connected to another circuit input terminal. A current source is connected to an A-side connection node for the A-side first differential circuit and the A-side second differential circuit and another current source is connected to a B-side connection node for the B-side first differential circuit and the B-side second differential circuit. A capacitor is connected between a connection point of the A-side connection node and a circuit output terminal and a connection point of the B-side connection node and another circuit output terminal.